

**REMARKS****I. Status of the Application**

Claims 19-27, 29 and 31-38 are pending in this application. In the October 11, 2007 final office action, the Examiner:

A. Rejected claims 19-27, 29 and 31-38 under 35 U.S.C. §103(a) as being over DE 19850642 to Schenk in view of Admitted Art;

B. Rejected claims 19-22, 25-27 and 33-36 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 7 of US 6,529,925 in view of the Admitted Art; and

C. Rejected claims 19-23, 25, 29, 31 and 33-37 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 26, 32, 38-39, 41, 43-45 and 50 of Application No. 10/763,045 in view of the Admitted Art.

In this response, Applicants respectfully traverse the rejection of the claims and request reconsideration based on the following remarks.

**II. The Combination of Schenk and the Admitted Art Does Not Arrive at the Invention of Claim 19**

Beginning on page 2, section 4 of the final office action, the Examiner rejected claim 19, among other claims, as allegedly being obvious over Schenk in view of Admitted Art. However, neither Schenk nor the Admitted Art, alone or in combination, teach or suggest a step of “after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector.” Accordingly, the proposed combination of Schenk and

the Admitted Art does not arrive at the invention of claim 19.

In the office action, Schenk was cited as disclosing all of the limitations of claim 19 except for the limitation of filtering the signal vector prior to determining the correction vector. Thus, it appears that the Examiner has admitted that Schenk fails to disclose determining a correction vector for a signal vector after filtering the signal vector. To supply the limitation of filtering the signal vector prior to determining the correction vector, the Examiner cited the background at page 4, first paragraph of the present disclosure as disclosing filtering the signal vector prior to determining the correction vector.

However, as pointed out in the September 7, 2007 Response, the first paragraph of page 4 of the specification as filed clearly states that “the reduction of the crest factor is *followed* by a filter circuit,” and therefore, the admitted prior art does not teach a step of filtering the signal vector *prior* to determining the correction vector. In the final office action at page 9, section 8(a), the Examiner appears to admit as much stating: “The admitted prior art does not teach, show or suggest ‘after filtering the signal vector, determining at least one correction vector as a function of the signal vector.’”

Thus, it appears that the Examiner agrees that neither Schenk nor the admitted prior art, alone or in combination, teaches, shows or suggests the limitation of “after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector.” Accordingly, because the combination of Schenk and the admitted prior art fails to disclose the limitation of “after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector,” it is respectfully submitted that the rejection of claim 19 over Schenk in view of Admitted prior art should be withdrawn.

However, in the “Response to Arguments” section of the final office action at (a), the Examiner also stated that the cited primary reference alone by Schenk discloses all of the limitations cited in the claimed invention. It appears that the Examiner is referring to the Schenk reference as the primary reference. Thus, the Office Action has presented contradictory arguments regarding the patentability of claim 19. For example, in section 4 of the final office action, it was stated that Schenk fails to disclose the limitation of “after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector.” In section 8(a) of the final office action, it was stated that the primary reference (Schenk?) alone teaches all of the limitations of the claims. Moreover, in section 4 of the final office action, it was stated that the Admitted Art teaches the limitation of “after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector.” In section 8(a) of the final office action, it was stated that the Admitted Art does not teach the limitation of “after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector.” Applicant respectfully request clarification regarding what the Examiner alleges the Schenk reference and the Admitted Art does and does not teach.

Regardless, it is respectfully submitted that neither the Schenk reference nor the Admitted Art disclose the limitation of “after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector.” For example, referring to FIG. 1 and 3 of Schenk, the signal vector corresponds to the values  $Y_1-Y_N$ . The values  $C_1-C_N$  represent the signal vector in the frequency domain and the values  $Y_1-Y_N$  represents the signal vector in the time domain, as explained, for example, at col. 4, lines 51-56 of the ‘925 patent.

(The '925 Patent is an English language version of DE 198 50 642). Consequently, the inverse Fourier transformer 4 does not constitute a filter, but converts the signal vector from the frequency domain to the time domain. Thus, only after Fourier transformer 4 is a signal vector of time discrete values present. Furthermore, referring to FIG. 3, the crest factor reduction unit 20 occurs immediately after the time discrete signal vector  $Y_1-Y_N$  has been formed. No intervening filters are mentioned. Therefore, Schenk, in either DE 198 50 642 or the '925 patent does not disclose filtering the signal vector prior to the crest factor reduction.

Therefore, it is respectfully submitted that neither Schenk nor the Admitted Art discloses the limitation of "after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector."

### III. Claims 20-32

Claims 20-32 also stand rejected as allegedly being obvious over Schenk and the Admitted art. Claims 20-32 all depend from and incorporate all of the limitations of claim 19. As discussed above, the combination of Schenk and the Admitted Art does not arrive at the invention of claim 19. Accordingly, for at least the same reasons as those set forth above in connection with claim 19, it is respectfully submitted that the obviousness rejection of claims 20-32 is in error and should be withdrawn.

### IV. The Obviousness Rejection of Claim 33 is in Error

Claim 33 also stands rejected as allegedly being obvious over Schenk in view of the Admitted Art. Claim 33 is directed to an apparatus that includes "a correction element

operably coupled to receive the filtered signal vector, the correction element configured to . . . determine at least one correction vector as a function of the filtered signal vector.”

As discussed above, neither reference teaches a step of “after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector.” Thus, neither of the references teaches a correction element coupled to receive the filtered signal and to determine a correction vector crest factor as a function of the filtered signal vector.

Because neither Schenk nor the Admitted Art, either alone or in combination, teaches or suggests each and every limitation of claim 33, it is respectfully submitted that the obviousness rejection of claim 33 is in error and should be withdrawn.

V. Claims 34-38

Claims 34-38 also stand rejected as allegedly being obvious over Schenk and the Admitted art. Claims 34-38 all depend from and incorporate all of the limitations of claim 33. As discussed above, the combination of Schenk and the Admitted Art does not arrive at the invention of claim 33. Accordingly, for at least the same reasons as those set forth above in connection with claim 33, it is respectfully submitted that the obviousness rejection of claims 34-38 is in error and should be withdrawn.

VI. The Double Patenting Rejection of Claim 19 Over the ‘925 Patent and the Admitted Art is in Error

The Examiner also rejected claim 19 as allegedly being unpatentable under the judicially created doctrine of nonstatutory obviousness-type double patenting as being

unpatentable over claims 1 and 7 of the '925 patent in view of the admitted prior art. In particular, the Examiner alleged that claim 19 was obvious over claims 1 and 7 of the '925 patent in view of the Admitted Art. However, neither claims 1 nor 7 of the '925 patent, nor the Admitted Art, alone or in combination, teach or suggest a step of "after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector." Accordingly, the proposed combination of claims 1 and 7 and the '925 patent and the Admitted Art does not arrive at the invention of claim 19.

The Examiner states that the '925 reference contains most of the elements of claims 19-22, 25-27 and 33-36, but fails to disclose the filtering with either high pass or low pass filter of the provided signal. However, there is no recitation in the final office action of the elements of the '925 patent or locations in the '925 patent that allegedly disclose the elements of the claims. To supply the limitation of filtering with either a high pass or low pass filter, the Examiner cited the Admitted Art which states that "the reduction of the crest factor is *followed* by a filter circuit." However, as discussed above and admitted to by the Examiner, the Admitted Art does not disclose filtering the signal vector prior to determining at least one correction vector as a function of the filtered signal vector. The '925 patent was not cited as disclosing, nor does it disclose, filtering the signal vector prior to determining at least one correction vector as a function of the filtered signal vector.

Accordingly, because the combination of claims 1 and 7 of the '925 patent and the Admitted Art fails to teach, show or suggest the limitation of filtering the signal vector prior to determining at least one correction vector as a function of the filtered signal vector, it is respectfully submitted that the obviousness type double patenting rejection of claim 19 over

the combination of claims 1 and 7 of the '925 patent and the Admitted Art is in error and should be withdrawn.

In the "Response to Arguments" section of the final office action at (b), the Examiner stated that the double rejection does not require the admitted prior art to show "after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector." Applicant respectfully disagrees.

An obviousness-type double patenting requires rejection of an application claim when the claimed subject matter is not patentably distinct from the subject matter claimed in a commonly owned patent. A double patenting rejection of the obviousness-type, if not based on an anticipation rationale, is "analogous to [a failure to meet] the nonobviousness requirement of 35 U.S.C. 103" except that the patent principally underlying the double patenting rejection is not considered prior art. *In re Braithwaite*, 379 F.2d 594, 154 USPQ 29 (CCPA 1967). Therefore, the analysis employed in an obviousness-type double patenting rejection parallels the guidelines for analysis of a 35 U.S.C. 103 obviousness determination. *In re Braat*, 937 F.2d 589, 19 USPQ2d 1289 (Fed. Cir. 1991); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985).

Thus, applying *Braat*, in order to make a determination of obviousness-type double patenting with respect to claim 19, a *prima facie* case of obviousness must be established. However, because the combination of claims 1 and 7 of the '925 patent and the Admitted Art fails to teach, show or suggest the limitation of "after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector," the combination of claims 1 and 7 of the '925 patent and the Admitted Art fails to disclose each and every

limitation of claim 19. Accordingly, it is respectfully submitted that a *prima facie* case of obviousness has not been established, and that the obviousness-type double patenting rejection of claim 19 over the combination of claims 1 and 7 of the '925 patent and the Admitted Art is in error and should be withdrawn.

VII. Claims 20, 21, 25-27 and 33-36

The Examiner also rejected claim 20, 21, 25-27 and 33-36 as allegedly being unpatentable under the judicially created doctrine of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 7 of the '925 patent in view of the admitted prior art. However, claims 20, 21, and 25-27 all depend from and incorporate all of the limitations of claim 19. As discussed above, the combination of Schenk and the Admitted Art does not arrive at the invention of claim 19. Accordingly, for at least the same reasons as those set forth above in connection with claim 19, it is respectfully submitted that the obviousness-type double patenting rejection of claims 20, 21, and 25-27 is in error and should be withdrawn.

Claim 33 also stands rejected as allegedly being unpatentable under the judicially created doctrine of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 7 of the '925 patent in view of the admitted prior art. As discussed above, claim 33 is directed to an apparatus that includes "a correction element operably coupled to receive the filtered signal vector, the correction element configured to . . . determine at least one correction vector as a function of the filtered signal vector." Therefore, the arguments presented above regarding the obviousness-type double patenting rejection of claim 19 is



applicable to claim 33. Accordingly, for at least those reasons given above in connection with claim 19, it is respectfully submitted that the obviousness-type double patenting rejection of claim 33 is in error and should be withdrawn.

Claims 34-36 also stand rejected as allegedly being unpatentable under the judicially created doctrine of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 7 of the '925 patent in view of the admitted prior art. Claims 34-36 all depend from and incorporate all of the limitations of claim 33. As discussed above, the combination of Schenk and the Admitted Art does not arrive at the invention of claim 33. Accordingly, for at least the same reasons as those set forth above in connection with claim 33, it is respectfully submitted that the obviousness-type double patenting rejection of claims 34-38 is in error and should be withdrawn.

VIII. The Double Patenting Rejection of Claim 19 Over copending Application 10/763,045 in view of the Admitted Art Is Moot

The Examiner also rejected claim 19 as allegedly being unpatentable under the judicially created doctrine of nonstatutory obviousness-type double patenting as being unpatentable over claims 26, 32, 38-39, 41, 43-45 and 50 of copending application 10/763,045 in view of the Admitted Art. However, copending application 10/763,045, nor the Admitted Art, alone or in combination, teach or suggest a step of "after filtering the signal vector, determining at least one correction vector as a function of the filtered signal vector." For example, as discussed above and admitted to by the Examiner, the Admitted Art does not disclose filtering the signal vector prior to determining at least one correction vector as a function of the filtered signal vector. Copending application 10/763,045 was not cited as

disclosing, nor does it disclose, filtering the signal vector prior to determining at least one correction vector as a function of the filtered signal vector.

Regardless, in order to address the nonstatutory obviousness-type double patenting rejection based on claims 26, 32, 38-39, 41, 43-45 and 50 of copending application 10/763,045 in view of the Admitted Art, a terminal disclaimer is being filed in the present application with respect to copending application 10/763,045. (See enclosed Terminal Disclaimer). Accordingly, it is respectfully submitted that the obviousness-type double patenting rejection of claim 19 based on claims 26, 32, 38-39, 41, 43-45 and 50 of copending application 10/763,045 in view of the Admitted Art is now moot and should be withdrawn.

IX. Claims 20-23, 25, 29, 31, and 33-37

The Examiner also rejected claims 20-23, 25, 29, 31, and 33-37 as allegedly being unpatentable under the judicially created doctrine of nonstatutory obviousness-type double patenting as being unpatentable over claims 26, 32, 38-39, 41, 43-45 and 50 of copending application 10/763,045 in view of the Admitted Art. However, as mentioned above, a terminal disclaimer is being filed in the present application with respect to copending application 10/763,045. (See enclosed Terminal Disclaimer). Accordingly, it is respectfully submitted that the obviousness-type double patenting rejection of claims 20-23, 25, 29, 31, and 33-37 based on claims 26, 32, 38-39, 41, 43-45 and 50 of copending application 10/763,045 in view of the Admitted Art is now moot and should be withdrawn.

X. Conclusion

For all of the foregoing reasons, it is respectfully submitted the applicant has made a patentable contribution to the art. Favorable reconsideration and allowance of this application is therefore respectfully requested.

In the event applicant has inadvertently overlooked the need for an extension of time or payment of an additional fee, the applicant conditionally petitions therefore, and authorizes any fee deficiency to be charged to deposit account 13-0014.

Respectfully submitted,



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